

In the Claims:

Please amend claims 3, 4, 6 and 14-16, and cancel claims 18-27. A complete listing of all claims is provided, below.

1. (Original) A non-natural heteropolymeric pulmonary spreading agent comprising at least one N-substituted glycine residue and at least one amino acid residue corresponding to a natural surfactant-associated protein, said protein selected from the group consisting of surfactant-associated protein B and surfactant-associated protein C.

2. (Original) The spreading agent of claim 1 wherein said N-substituent is a moiety selected from the group consisting of carbon homologs to the α -carbon moieties of naturally-occurring α -substituted amino acids.

3. (Currently Amended) The spreading agent of claim 1 wherein at least one of residues 1-25 of ~~wherein said protein~~ is surfactant-associated protein B and residues 1-25 thereof is replaced with an N-substituted glycine residue.

4. (Currently Amended) The spreading agent of claim 3 wherein said amino acid residues are interspersed with said N-substituted glycine residues.

5. (Original) The spreading agent of claim 3 wherein said surfactant-associated protein B residues comprise at least 70% of said spreading agent.

6. (Currently Amended) The spreading agent of claim 1 wherein at least one of residues 1-35 of ~~wherein said protein~~ is surfactant-associated protein C and residues 1-35 thereof is replaced with an N-substituted glycine residue.

7. (Original) The spreading agent of claim 1 wherein said surfactant-associated protein C residues are 5-32.

8. (Original) The spreading agent of claim 7 wherein said surfactant-associated protein C residues comprise at least 70% of said spreading agent.

9. (Original) A pulmonary surfactant composition comprising a non-natural heteropolymeric spreading agent having at least one N-substituted glycine

residue and at least one amino acid residue corresponding to a natural surfactant associated protein, said protein selected from the group consisting of surfactant-associated protein B and surfactant-associated protein C; and a component selected from the group consisting of naturally-occurring phospholipid, non-natural analogs of said phospholipids, commercial surface-active agents and combinations thereof, said composition having physiological alveolar surface activity.

10. (Original) The surfactant composition of claim 9 wherein said phospholipid is selected from the group consisting of dipalmitoylphosphatidylcholine, phosphatidylcholine, phosphatidylglycerol, phosphatidylethanolamine, phosphatidylinositol, phosphatidylserine, and combinations thereof.

11. (Original) The surfactant composition of claim 9 further including a palmitic acid.

12. (Original) The surfactant composition of claim 9 wherein said spreading agent is present at about one weight percent to about twenty weight percent of said composition, and said phospholipid is present in an amount sufficient to reduce alveolar surface tension.

13. (Original) The spreading agent of claim 9 wherein said N-substituent is a moiety selected from the group consisting of carbon homologs to the α -carbon moieties of naturally-occurring α -substituted amino acids.

14. (Currently Amended) The spreading agent of claim 9 wherein at least one of residues 1-25 of ~~wherein said protein is surfactant-associated protein B and residues 1-25 thereof is replaced with an N-substituted glycine residue.~~

15. (Currently Amended) The spreading agent of claim 14 wherein said amino acid residues are interspersed with said N-substituted glycine residues.

16. (Currently Amended) The spreading agent of claim 9 wherein at least one of residues 1-35 of ~~wherein said protein is~~ surfactant-associated protein C and residues 1-35 thereof is replaced with an N-substituted glycine residue.

17. (Original) The spreading agent of claim 16 wherein said surfactant-associated protein C residues are 5-32.

Claims 18-27 (Canceled)

28. (Currently Amended) A pulmonary surfactant composition, comprising:

a non-natural heteropolymeric spreading agent having the one-letter code structure



wherein X_1 and X_2 are selected from the group consisting of an F residue and a C-palmitoyl residue, wherein NX_3 is an N-substituted ~~peptide~~ polypeptoid monomer with X_3 selected from the group consisting of ssb and spe substituents, and wherein n is an integer from about 13-20; and

a lipid admixture combined with said spreading agent.

29. (Original) The surfactant composition of claim 28 wherein n is 15-16.

30. (Currently Amended) A pulmonary surfactant composition, comprising:

a non-natural heteropolymeric spreading agent having the three-letter code structure



wherein X_1 and X_2 are selected from the group consisting of *Npm*, *Noc* and *Nhd* substituted glycine residues, wherein NX_3 is an N-substituted ~~peptide~~ polypeptoid monomer with X_3 selected from the group consisting of spe and ssb substituents, and wherein n is an integer from about 13-20; and

a lipid admixture combined with said spreading agent.

31. (Original) The surfactant composition of claim 30 wherein n is 15-16.